WHAT IS CLAIMED IS:

1. An electrochemical therapy apparatus, comprising:

a main controller for performing calculation processes of parameters for electrochemical therapy;

a storage unit connected to the main controller, and storing a program for processing the parameters and also storing data related to the parameters;

an input unit and an output unit connected to the main controller, the output unit displaying or printing data related to the parameters;

a converter connected to the main controller and converting the parameters output from the main controller into analog values to transmit the parameters as electrical signals for electrochemical therapy, or converting input analog values into digital values and transmitting the digital values as electrical signals to the main controller;

a plurality of channels connected to the converter to transmit electrical signals, each of the channels operating independently; and

a plurality of electrode units each connected to one of the channels, and each including an anodic electrode and a cathodic electrode in a wire shape, and that are coated with platinum and between which direct current flows to perform electrochemical therapy.

2. The electrochemical therapy apparatus of claim 1, wherein each of the channels comprises:

an isolated amplifier, which is electrically isolated, outputs an electrical signal transmitted from the converter to realize independent driving for electrochemical therapy in order to prevent electrical shocking from transmitting to a patient;

an output driver connected to the isolated amplifier, receiving a driving voltage for electrochemical therapy and converting the driving voltage to a direct current, and maintaining a constant current or a constant voltage for a predetermined time in step pattern;

a protection unit connected to the electrode unit and cutting off power when there are abnormalities in the current or voltage applied to the electrode unit from the output driver; and

a detector connected to the electrode unit, detecting a voltage or a current applied to the electrode unit, and transmitting the voltage or current to the converter.

3. The electrochemical therapy apparatus of claim 1, wherein the output driver maintains the constant voltage of 2V for one hour and then generates a constant current of 100mA.

4. The electrochemical therapy apparatus of claim 1, further comprising a warning unit generating a warning message or warning alarm when an open or short occurs in the electrode units and a corresponding signal is received from the main controller.

5. The electrochemical therapy apparatus of claim 2, wherein the protection unit includes a power cutoff circuit that receives a driving voltage from the corresponding electrode unit, and cuts off power supplied to the electrode unit if any one of a current and voltage between the anodic electrode and the cathodic electrode falls outside of the ranges respectively of 1~300mA and 1~30V.

6. The electrochemical therapy apparatus of claim 2, wherein the protection unit includes a power cutoff circuit that cuts off power supplied to the corresponding electrode unit when a resistance value, which is obtained by setting as a numerical value a distance between the anodic electrode and the cathodic electrode, exceeds a predetermined value.

7. The electrochemical therapy apparatus of claim 1, wherein the anodic electrodes and the cathodic electrodes are made of tungsten, and surfaces thereof are rough.

8. The electrochemical therapy apparatus of claim 1, wherein at least one of the anodic electrodes and the cathodic electrodes are coated with platinum using a non-equilibrium magnetron sputtering method.

9. The electrochemical therapy apparatus of claim 8, wherein a thickness of the platinum coated on the anodic electrodes and the cathodic electrodes is 2500~3000Å.

10. The electrochemical therapy apparatus of claim 1, wherein the electrode units each include a distributor connected to the anodic electrodes and the cathodic electrodes.

11. The electrochemical therapy apparatus of claim 10, wherein each of the distributors includes tweezer-like members or connecting tubes at one end thereof, and each is connected to the corresponding anodic electrode and cathodic electrode through the tweezer-like members or connecting tubes.

12. The electrochemical therapy apparatus of claim 10, wherein the electrode units further comprise a guide cap that surrounds a distributor-connecting area of the anodic electrode and the cathodic electrode, and exposes an opposite end.

13. The electrochemical therapy apparatus of claim 12, further comprising a flexible tube positioned along a lengthwise direction of the anodic electrode and the cathodic electrode between the anodic electrode and cathodic electrode of the distributor-connecting area and the guide cap, and a plurality of wire ties are formed surrounding an outer circumference of the flexible tube at predetermined intervals, part of the guide cap in the area where the wire ties are formed being cut away.

14. The electrochemical therapy apparatus of claim 13, wherein the wire ties alternately have a positive polarity and a negative polarity formed thereon.

15. The electrochemical therapy apparatus of claim 1, wherein at least one of the anodic electrodes and the cathodic electrodes are wave shaped.

16. The electrochemical therapy apparatus of claim 1, wherein at least one of the anodic electrodes and the cathodic electrodes are coil shaped.